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MECHANICAL QUANTITY SENSOR

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to a mechanical quantity sensor configured to detect a mechanical quantity such as acceleration, angular acceleration, angular velocity, or load.

2. Description of the Related Art

[0002] A known acceleration sensor including piezoelectric vibrators is disclosed in Japanese Unexamined Patent Application Publication No. 2002-243757 filed by the assignee/applicant of this application.

[0003] The known acceleration sensor outputs an acceleration detection signal in the following manner. A bridge circuit is configured with two piezoelectric vibrators receiving stresses generated by acceleration in opposite directions and two load impedances each including a capacitor. A voltage-dividing impedance circuit is provided between the average output terminals of the bridge circuit. An oscillating circuit is configured by feeding back a signal from the voltage-dividing point of the voltage-dividing impedance circuit to the connection point of the two piezoelectric vibrators by a feedback signal processing circuit. The phase difference between oscillation output